

**In the Specification:**

Please replace paragraph [0008] with the following amended paragraph:

**[0008]** In an illustrative embodiment, a method for differentiating a stem cell or a progenitor cell into a neuron is provided. The method includes contacting the stem cell or the progenitor cell with a Hedgehog protein and cyclodextrin (CD) under conditions sufficient to decrease sterol concentrations in the cell, until the stem cell or the progenitor cell differentiates into a neuron. Substantially uniform populations of differentiated cells can be [introduce] introduced into an animal, such as a mammal, in cell therapy methods provided herein. The Hedgehog protein in certain aspects is a Sonic Hedgehog protein.

Please replace paragraph [0009] with the following amended paragraph:

**[0009]** In another embodiment, provided herein is a method to change the responsiveness of a stem cell or a progenitor cell to a Hedgehog signal, including contacting the stem cell or the progenitor cell with cyclodextrin (CD) *in vitro* under conditions sufficient to decrease sterol concentrations in the cell; and contacting the stem cell or the progenitor cell with a Hedgehog protein, thereby changing the responsiveness to a Hh signal. The method can further include detecting expression of a Hedgehog responsive gene and/or a gene whose [[is]] expression is associated with neuron differentiation.

Please replace paragraph [0090] with the following amended paragraph:

**[0090]** Accordingly, provided herein [~~In yet another embodiment, provided herein~~] is a method for identifying a test compound that restores responsiveness to a Hedgehog (Hh) signal, including contacting a cell with a Hh protein,  $\beta$ -cyclodextrin ( $\beta$ CD), under conditions sufficient to decrease sterol concentrations in the cell; and a test compound. Test compounds that restore responsiveness to an Hh signal can be identified by identifying test compounds that stimulate a higher level of responsiveness to the Hh signal as compared with the level of responsiveness in the absence of the test compound.